



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,749	05/23/2001	Tadashi Fukumoto	Ishii Case 16	9164

7590 10/09/2002

FLYNN, THIEL, BOUTELL & TANIS, P.C.
2026 Rambling Road
Kalamazoo, MI 49008-1699

EXAMINER

SALDANO, LISA M

ART UNIT	PAPER NUMBER
----------	--------------

3673

DATE MAILED: 10/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/863,749

Applicant(s)

FUKUMOTO ET AL. *h*

Examiner

Lisa M. Saldano

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6,7 and 12-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 6,7, and 12-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10. 6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 13, 14, 16, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Umeda (JP405331817A).

Regarding claims 13, Umeda discloses a breakwater structure comprising an open box 10 having a vertical wall 14 for producing a breakwater at an offshore side wherein the vertical wall has openings 24 at a lower end and inclined slits 32 with respect to the direction along which waves propagate disposed at the top portion of the box.

Regarding claim 14, Umeda discloses the breakwater structure described above wherein the box has a breaking wave section formed as a closed upper portion 16 between the vertical wall and said slits.

Regarding claim 16, Umeda discloses the breakwater structure described above wherein the box is placed on a mound 58 forming two stages.

Regarding claim 17, Umeda discloses the breakwater structure described above wherein the box has a breaking wave section formed as a closed upper portion 16 between the vertical wall and said slits.

Art Unit: 3673

Regarding claim 18, Umeda discloses the breakwater structure described above wherein a through path (66,64,62,60) is provided from the box to a coastal side of the breakwater structure.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 12, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Umeda (JP405331817A) in view of Michishita (JP362117905A).

Umeda discloses a breakwater structure comprising an open box 10 having a vertical wall 14 for producing a breakwater at an offshore side wherein the vertical wall has openings 24 at a lower end and inclined slits 32 with respect to the direction along which waves propagate disposed at the top portion of the box. The box is placed on a mound 58 forming two stages and a through path (66,64,62,60) is provided from the box to a coastal side of the breakwater structure. However, Umeda fails to disclose that the throughpath is provided to the base of the mound. Michishita discloses a breakwater structure 1 wherein a through path 18 is provided through the breakwater structure right through to the base of a mound (see Fig.5).

It would have been obvious to one of ordinary skill in the art to combine Michishita's teaching of providing a throughpath extended to the base of the mound with Umeda's breakwater

Art Unit: 3673

structure because the path extension minimized the potential for forces created by the water exiting the breakwater to erode or destroy the mound.

4. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Umeda as applied to claim 18 above, and further in view of Michishita (JP362117905A). Umeda discloses the breakwater structure described above. However, Umeda fails to disclose that the throughpath is provided to the base of the mound. Michishita discloses a breakwater structure 1 wherein a through path 18 is provided through the breakwater structure right through to the base of a mound (see Fig. 5).

It would have been obvious to one of ordinary skill in the art to combine Michishita's teaching of providing a throughpath extended to the base of the mound with Umeda's breakwater structure because the path extension minimized the potential for forces created by the water exiting the breakwater to erode or destroy the mound.

5. Claims 15, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Umeda as applied to claim 13 above, and further in view of Lenson (4,978,247). Umeda discloses the breakwater structure described above. However, Umeda fails to disclose that the breakwater structure has a hole formed at the bottom of the box, of that the structure comprises legs. Lenson discloses a breakwater structure 10 comprising at least one hole 36 formed at the bottom of the structure. Lenson further discloses that the breakwater structure is supported by legs 34a,b and that the height of the coastal side of the box 16 is higher than the vertical wall 14 such that slits 20 in the structure become higher toward the coastal side (see Fig. 1 and 2).

Art Unit: 3673

It would have been obvious to one of ordinary skill in the art to combine Lenson's teachings of a leg structure and bottom hole with Umeda's breakwater structure because the bottom hole provides another point of egress for water to migrate outside the breakwater. Furthermore, the leg structure can be used to provide a passageway for the flow of water under the breakwater structure while maintaining adequate support for the breakwater.

Response to Arguments

6. Applicant's arguments with respect to claims 6, 7 and 12-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa M. Saldano whose telephone number is 703-605-1167. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on 703-308-2978. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Application/Control Number: 09/863,749

Art Unit: 3673

Page 6



Thomas B. Will
Supervisory Patent Examiner
Group Art Unit 3671
for Heather Shackelford

lms
October 4, 2002